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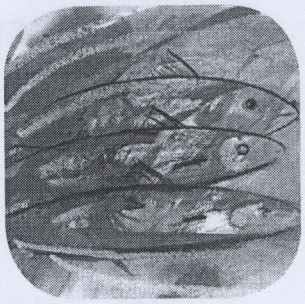

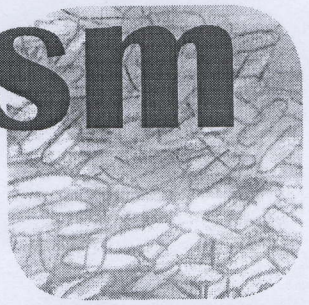

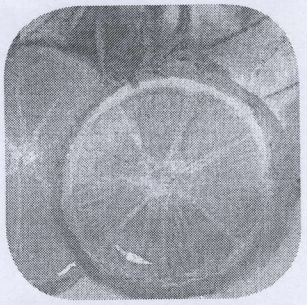

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Abstracts

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O038

IDENTIFYING KEY FOOD SOURCES OF VITAMIN A, IRON AND ZINC AND POTENTIAL FOOD FORTIFICATION VEHICLES IN BANGLADESH

O. Bermudez[1], J. Fiedler[2], K. Lividini[2]

[1]Tufts University School of Medicine, Boston, USA
[2]HarvestPlus, International Food Policy Research Institute (IFPRI), USA

Background and objectives: Bangladesh (BD) has made remarkable progress in improving health of its people over the past three decades. Progress in nutrition has been much slower. We aimed at a national evaluation in BD assessing apparent food consumption patterns and intakes of energy (E) and the micronutrients (MN): vitamin A (VitA), iron (Fe) and zinc (Zn) with the goal of identifying food vehicles for fortification.

Methods: We used the BD 2010 national household consumption and expenditure survey (HCES), with 12,240 households (hhold) and 55,580 individuals. With socio-demographic and food acquisition data from 14 days plus a nutrient database for BD, we calculated hhold distributions of food and nutrient intakes with adult consumption equivalents. Comparing the usual intakes to age/sex-specific estimated average requirements, we estimated prevalences of inadequate intakes using the cut-point (VitA and Zn) and the probability (Fe) methods. Results were stratified by region, urban/rural and poverty groups.

Results: Rice (68%) was the main source of E, followed by oilsand fats (9%) and wheat flour (6%). For vitA, main sources were vegetables (66%) and milk anddairy (10%). Main contributors for Fe were vegetables, rice and wheat flour while sources of Zn were rice, vegetables and meats. Inadequate intakes of micronutrients were detected in 67%, 36% and 42% of the population for VitA, Fe and Zn, respectively. The most affected population was the hard-core poor, with inadequate intakes observed among 87% (VitA), 61% (Fe) and 77% (Zn) of them.

Conclusions: This paper contributes to laying a foundation for better understanding nutrition status in Bangladesh. Taking into account the industrial structure of candidate food vehicles, and focusing only on food purchase we identified potential fortification vehicles and estimate the coverage and quantity of the potential vehicles consumed.

Key words: Bangladesh, food consumption, micronutrient fortification Funding: SPRING Project

O039

ADOLESCENT GIRLS IN INDONESIA ARE AT RISK OF INADEQUATE MICRONUTRIENT INTAKES

R. Indriasari[1], S K. Hamid[1]

[1]Nutrition Department, Facuty of Public Health, Hasanuddin University-Indonesia

Background and objectives: Due to their specific eating habits and lifestyles, adolescents were commonly at risk for low micronutrient intakes that may result in greater risk of micronutrient deficiencies. Adolescent girls have to consume adequate nutrition to support their rapid growth and development as well as to ensure good pre-conception nutritional status. Previous research on adolescent girls in many countries has shown that this group always did not meet the recommended values for some important micronutrients. Data on micronutrient intakes among Indonesian adolescent girls is limited, particularly those derived from large scale studies.

Methods: Analyses were undertaken on consumption data of 20030 adolescent girls derived from the national survey, RISKESDAS (Basic Health Research) 2010. Micronutrient intakes were calculated based on Indonesian food composition data using NUTRISOFT program. Micronutrient adequacies were determined according to the Indonesian recommended daily allowance 2004 and WHO references 2004. ANOVA test was performed to determine differences in average micronutrient intakes and Chi-Square test was performed to determine differences in risk of micronutrient inadequacy according to age groups, residential location, pregnancy, and menstruation status.

Results: The girls' daily micronutrient intakes (vitamin A, vitamin C, Folic Acid, Iron, Zinc, and Calcium) were low and differences were observed by age, residential location, pregnancy status, and menstruation status ($p < 0.05$, ANOVA). The prevalence of inadequate micronutrient intakes were high (above 90%) and differences were observed by age, residential location, pregnancy status, and menstruation status ($p < 0.05$, Chi-Square).

Conclusions: Indonesian adolescent girls were at risk of low micronutrient intakes that may contribute to greater risk of micronutrient deficiencies. Age, residential location, pregnancy, and menstruation, could contribute to the low intakes.

Key words: micronutrient, adolescent girls, Indonesia

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